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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 33

Application Number: 08/820,057
Filing Date: 3/18/1997
Appellant(s): Turner et al.

Steven J. Frank
For Appellant

EXAMINER'S ANSWER

This is in response to appellant's brief on appeal filed 11/14/2001.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 1-28 and 30-34 stand or fall together.

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

5220316	KAZAN	7-1993
5216530	PEARLMAN ET AL.	6-1993
5042917	FUJITA ET AL	8-1991
4741601	SAITO	9-1988

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-28 and 30-34 are rejected under 35 U.S.C. 103(a). This rejection is set forth in prior Office action, Paper No. 28.

(11) Response to Argument

Claim 1

Kazan teaches of an a first printed electrode, figure 4 item 17,an electrophoretic display media, column 3 lines 1-15, column 5 lines 30-35, column 6 lines 50-60, figure 4 items 12 and 13, a printed non-linear devices, figure 4 items 14 and 16, and a second printed electrode, figure 4 item 15, wherein the top and bottom electrodes intersect to form a matrix, wherein an applied voltage to the electodes will electrically couple the nonlinear device to a first and second electrode via a bus bar electrode connection, figure 11 item 1. **Kazan lacks** the teaching of printing a display media over the printed nonlinear device to form the dsiplay. **Pearlman provides** the teaching that the contruction of a an encapsulated display media of the type suggested by Kazan can be formed by printing a fist electrode, printing an encapsulated display media, and then printing a second electrode, column 10 lines 7-30. **Fujita teaches** of a conventional display media wherein unlike the printing techniques of Kazan and Pearlman, he teaches of a semiconductor technique for forming a display media wherein first an electrode is formed on a substrate layer, figure 11 item 3, next a nonlinear device is formed on top and adjacent to the first electrode, figure 11 item 2, next a display media is formed on top of said lower levels, including the nonlinear device and electrodes, figure 11 item 13, and finaly the second electrode is formed on top of said display media, figure 11 item 11. **Because Fujita teaches of a conventional display system with a known layering structure**, as claimed by the Appellant, **it would have been obvious to the**

skilled artisan to produce such a layered structure by the printing techniques of Kazan and Pearlman, wherein a printable electronic display is formed by printing a fisrt electrode onto a fisrt substrate, as taught by Kazan and Pearlman, printing a nonlinear device over the first electrode, as taught by Kazan in veiw of Fujita, printing a display media over the nonlinear element, as taught by Pearlman in view of Fujita, and printing a second electrode over the display media, as taught by Kazan and Pearlman, as suggested by the conventional layer structure of Fujita. Therefore the Examiner maintains the invention as found in claim 1, would have been obvious to the skilled artisan. The Saito reference overlaps with the Fujita teaching and makes a insignificant contribution to the rejection.

The Appelant's two arguments suggest that 1) the claimed layer structure is absent from the Prior Art, and 2) the electrical coupling of the nonlinear device to the electrodes is absent from the Prior Art.

1) In response to the first argument, on page 8 line 7, the Appelant admitts that a small portion of the nonlinear element extends over the lower display electrode. The is the very same portion the Examiner is using to support his arguement. In order to have such an overlapp, as admitted to by the Appelent, the electrodes would have to be deposited in order before the nonlinear device. Because the nonlinear device is deposited after the lower electrode it overlaps or in other words

is applied on top of the electrode. Therefore the Examiner maintains the nonlinear elements are printed over the electrodes.

2) In response to the second argument regarding the suggested absent electrical coupling of the nonlinear elements to the first and second electrodes, such a coupling is inherent to Fujita. Wherein the broad term of "electrically coupling" would include the coupling of the bus bar and lower electrode through the nonlinear device. This connection functions to couple the upper electrode through an applied electrical voltage used to operate the display media in order to make the display media contrast appear light and dark, functioning as many conventional display system behave. Therefore electrical coupling occurs in series from the required applied voltage connecting to the bus bar, which makes a physical connection to the nonlinear device, which then connects to the electrode on the one hand, as well as the applied voltage connecting to the second electrode the other. See figure 11 of Fujita. The inherent voltage source that is required for the circuti to funTherefore Fujita teaches of the nonlinear device being electrically coupled to the two opposing electrodes as claimed.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

DLL
December 14, 2001

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